

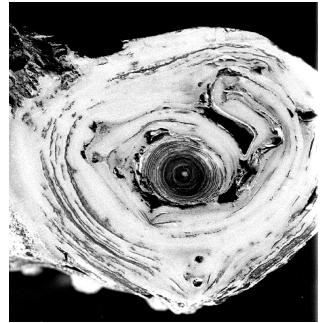
# **Deep-sea coral outline for NSERC Network proposal**

## **Dalhousie University and partners**

- This proposal addresses a problem common to all of us.
- Adequate ship/ROV time on a regular basis.
- This network would include sufficient funds for at least two ROV cruises per year and would be open to anyone in the network



## Goals



- **Paleo-Climate studies using deep-sea corals as proxies and matching with instrumental records as a calibration**
- **Studies of living corals for metabolic, genetic, feeding, associated organisms etc**
- **Studies of distribution of these corals with respect to fisheries impacts and overall distribution worldwide**



## **Facilities available**



- **Access to Canadian Coast Guard ships**
- **Large seawater facility capable of handling these corals**
- **Several analytical facilities at member universities with Mass spect, etc**
- **Largest group in North America with personnel in all aspects of coral research**



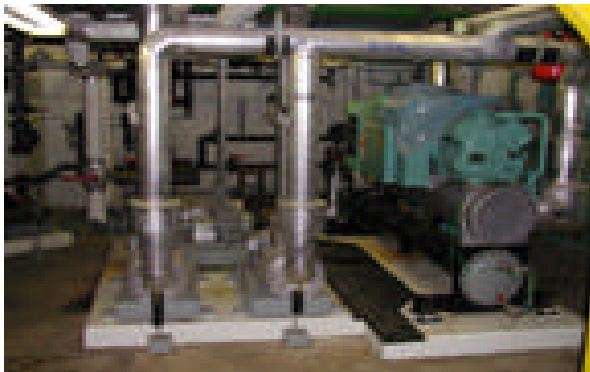
## Groups already included

- **Dalhousie University, McMaster University, Univ. Quebec (Montreal), Memorial Univ., Glasgow Univ., Tübingen Univ.**
- **Govt. organizations: Dept. Fish and Ocean., (Can), Geological Survey(Can), Parks Canada**
- **Non-govt.- Can. Offshore Hab. (COHPS), Monterey Bay Aquarium, Ecology Action Centre**



# SEAWATER FACILITY AT DALHOUSIE

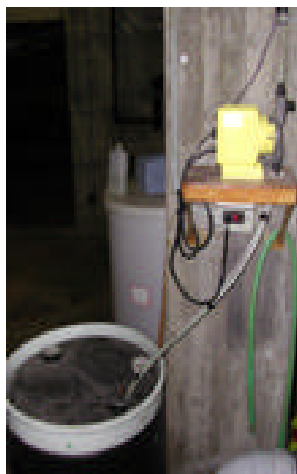
Chiller system



Looking down tower tank



Salinity Adjustment system



Tower tank porthole



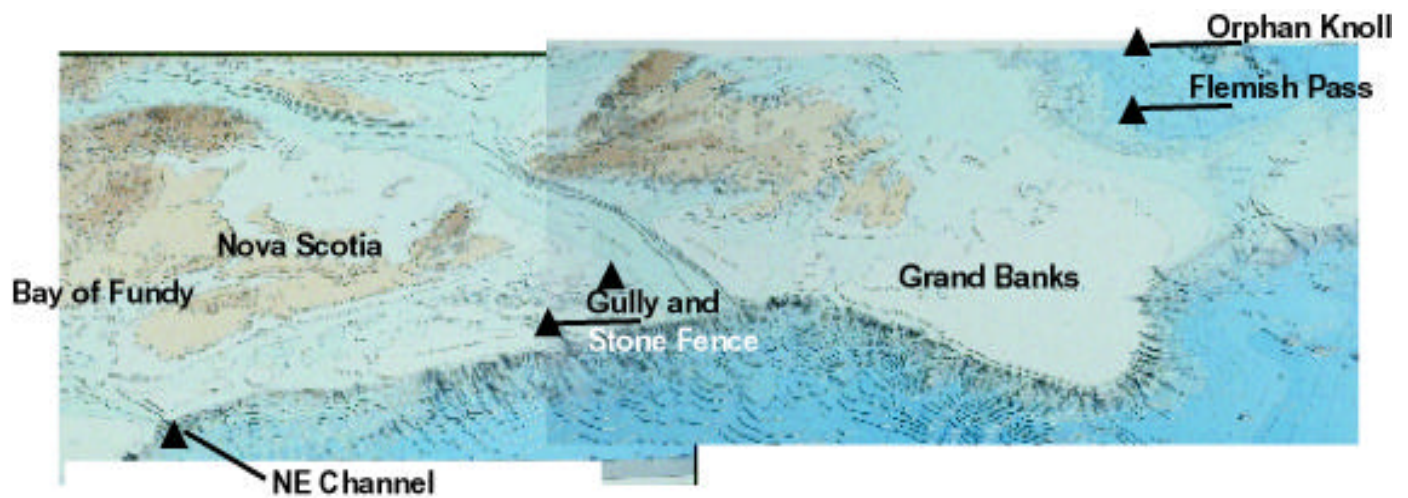
***IT EXPLORER WHICH WILL BE USED IN JULY 2003  
ON THE EASTERN CANADIAN MARGIN***



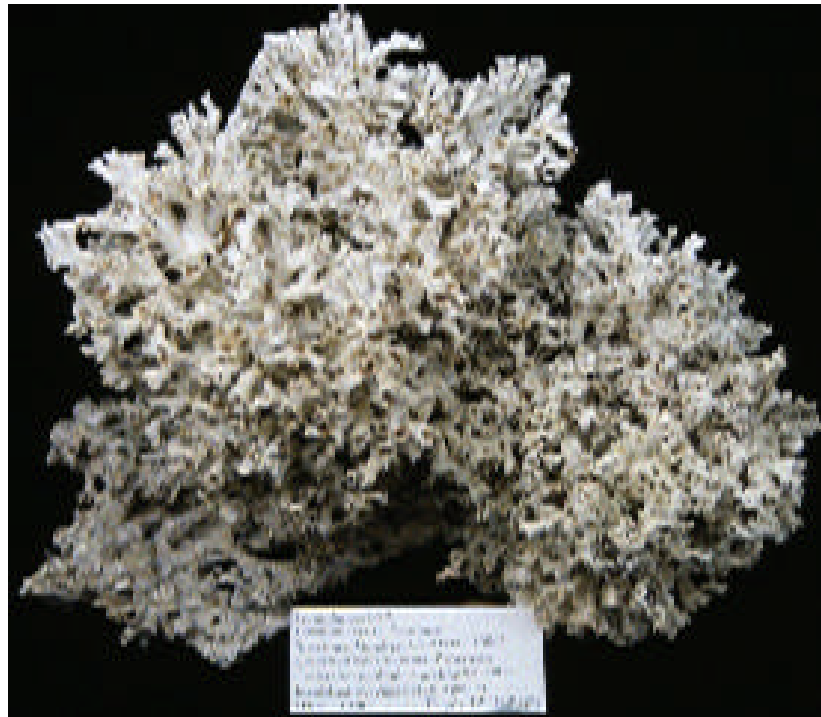


## Proposed locations for *IT EXPLORER* cruise July/August, 2003

- Orphan Knoll may contain the largest and deepest (1500m) *Desmophylum* reef in the world

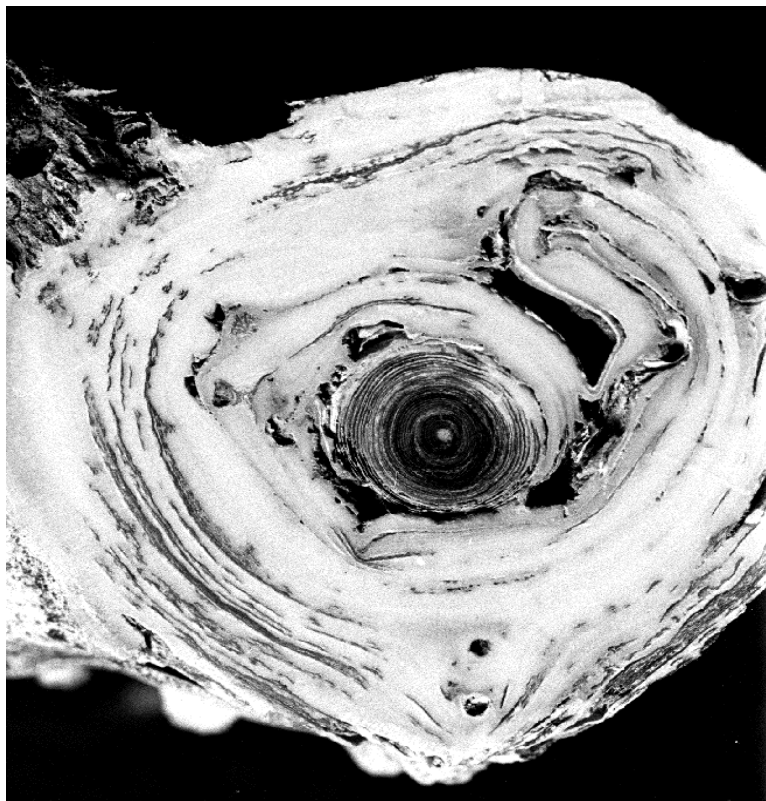


**Coral from Jason Hall-Spencer-200m in  
the Irish Sea-collected in ~1910 and was in the  
Glasgow Univ. Museum-there is no coral in this area  
now**



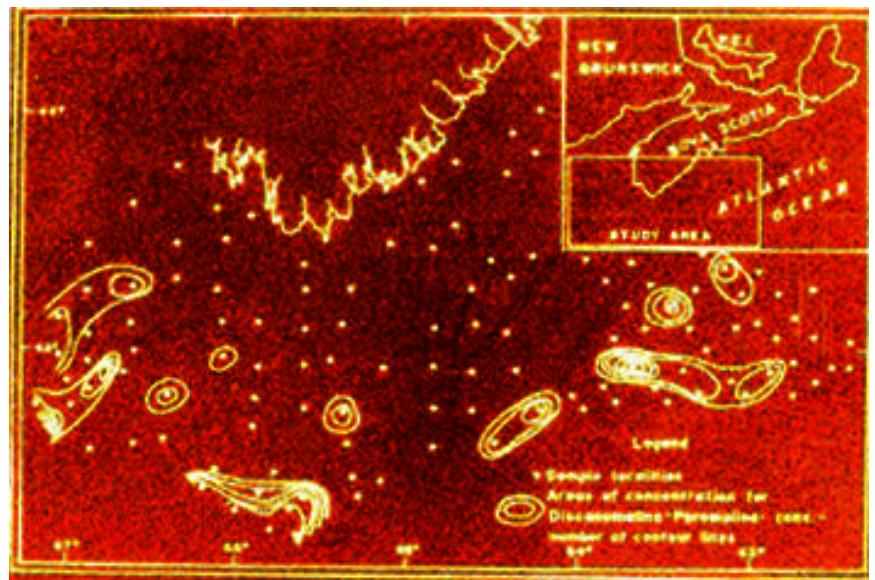


**Cross-section through the base of a large  
*Primnoa* given to us by fishermen**



# Microfossils specific to deepsea corals

*Discanomalina semipunctata*- Map of SW Scotian Shelf with  
appears to only live on *Primnoa* concentrations of *D. semipunctata*



**Latest article Nov. 12, 2002**

**Survival of Fish, Deep-Sea Corals May Be Linked**

By Cheryl Lyn Dybas

Special to *The Washington Post*

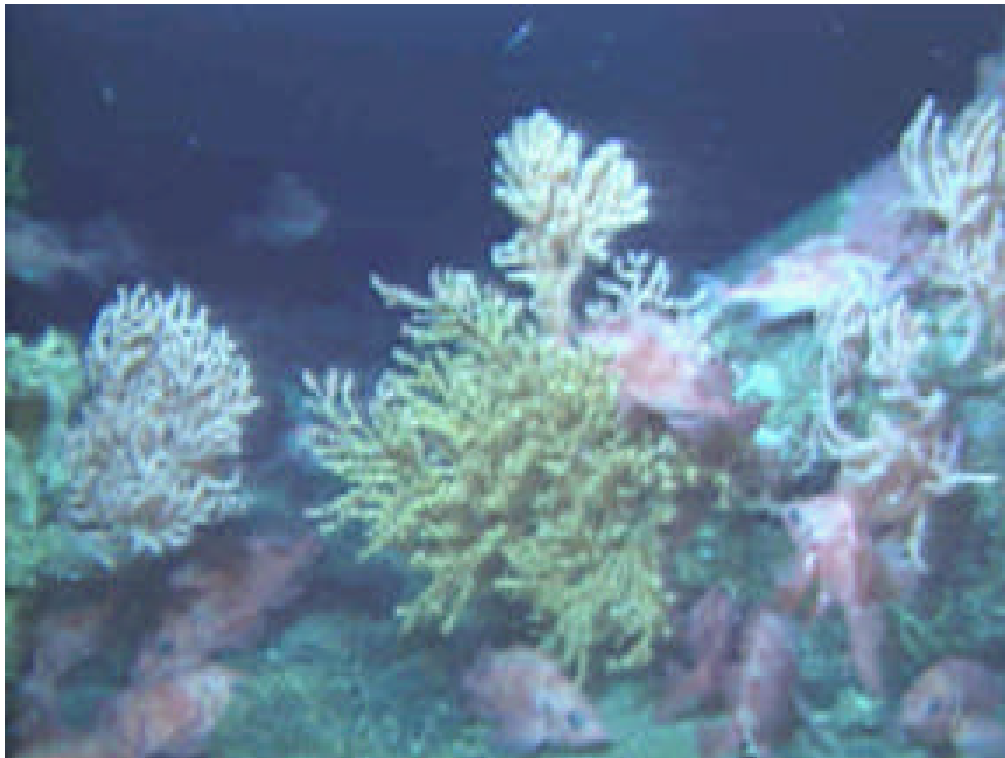
**Monday, November 11, 2002; Page A09**

*Flabellum* sp at 500m in Verrill  
Canyon, Scotian Slope



# **Fish and corals**

## **NE Channel, Scotian Margin**



## **Large *Paragorgia* (2m high) in the NE Channel**

